

A new species of *Diplodactylus* (Lacertilia: Gekkonidae) from northern Australia

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Abstract

The new species, *Diplodactylus jeanae*, was formerly confused with *D. taeniatus*, which it replaces in the northern arid zone of Western Australia and the Northern Territory. *D. taeniatus* is redescribed.

Introduction

When demonstrating the distinctness of *Diplodactylus taeniatus* from *D. michael-seni*, Storr and Ford (1967) had 40 specimens of 'taeniatus' but none of them came from the type locality (Broome) or same climatic zone (northern semiarid). It is now appreciated that these specimens belonged to a different species, which is here described as new.

This paper is based on specimens in the Western Australian Museum (R prefix omitted from catalogue numbers) and colour slides kindly loaned by G. Harold, R.E. Johnstone, M. Peterson and B.G. Bush.

Diplodactylus jeanae sp. nov.

Figure 1

Holotype

81843 in Western Australian Museum, collected by B.G. Bush on 22 November 1982 at Port Hedland, Western Australia, in 20°19'S, 118°36'E.

Paratypes

For details of 131 specimens see Material.

Diagnosis

A very small and extremely slender *Diplodactylus* (subgenus *Strophurus*), most like *D. taeniatus* but with rostral entering nostril and very wide ventral stripe (at widest occupying half width of abdomen).

Description

Snout-vent length (mm): 23-49 (N 132, mean 38.1). Length of tail (% SVL): 72-100 (N 64, mean 85.3).

Nostril surrounded by first labial, rostral (median groove complete in 84 per cent of specimens), 1 (N 1), 2 (106) or 3 (18) supranasals, and 1 (N 13), 2 (97)

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or 3 (14) postnasals. Internasals 0 (N 3), 1 (78), 2 (39) or 3 (7). Upper labials 9 (N 3), 10 (14), 11 (26), 12 (34), 13 (10) or 14 (4). Under side of digits with pair of large apical plates, followed on fourth toe distally by 2 (N 1), 3 (40) or 4 (8) transverse lamellae, and proximally by 1 (N 7), 2 (33), 3 (8) or 4 (1) rows of subcircular scales. No pre-anal pores.

Back greyish white or yellowish white except occasionally for narrow orange-brown vertebral stripe from neck to base of tail. Dark orange-brown upper lateral stripe on neck, body and tail, narrowing as it passes forward through orbit to snout. Wide grey mid-lateral stripe from orbit to base of tail, extending to upper surface of limbs but only its whitish upper edge extending to tail. Orange-brown lower lateral stripe from side of neck to base of tail; forking behind ear aperture, upper branch extending narrowly forward along upper lip to snout, the lower narrowly along side of chin. Broad brown mid-ventral stripe, narrowing as it extends forward to chin and back on to tail; widest on abdomen, where it encloses narrow yellow or orange stripe. Iris purplish grey flecked greyish white, except for white edge to pupil and greyish white periphery.

The foregoing describes the pattern in the darkest specimens. However the dark stripes are usually paler and less extensive and are often hollow (i.e. only their dark edges are discernible).



Figure 1 A *Diplodactylus jeanae* from 9 km NW of Barradale, W.A., photographed by G. Harold.

Distribution

Arid zone of Western Australia and Northern Territory from Lagrange, Dampier Downs, Christmas Creek, Wolfe Creek Crater and Elliott south to Barradale, Turee Creek, McConkey Hill and the Kintore Range. See map, Figure 2.

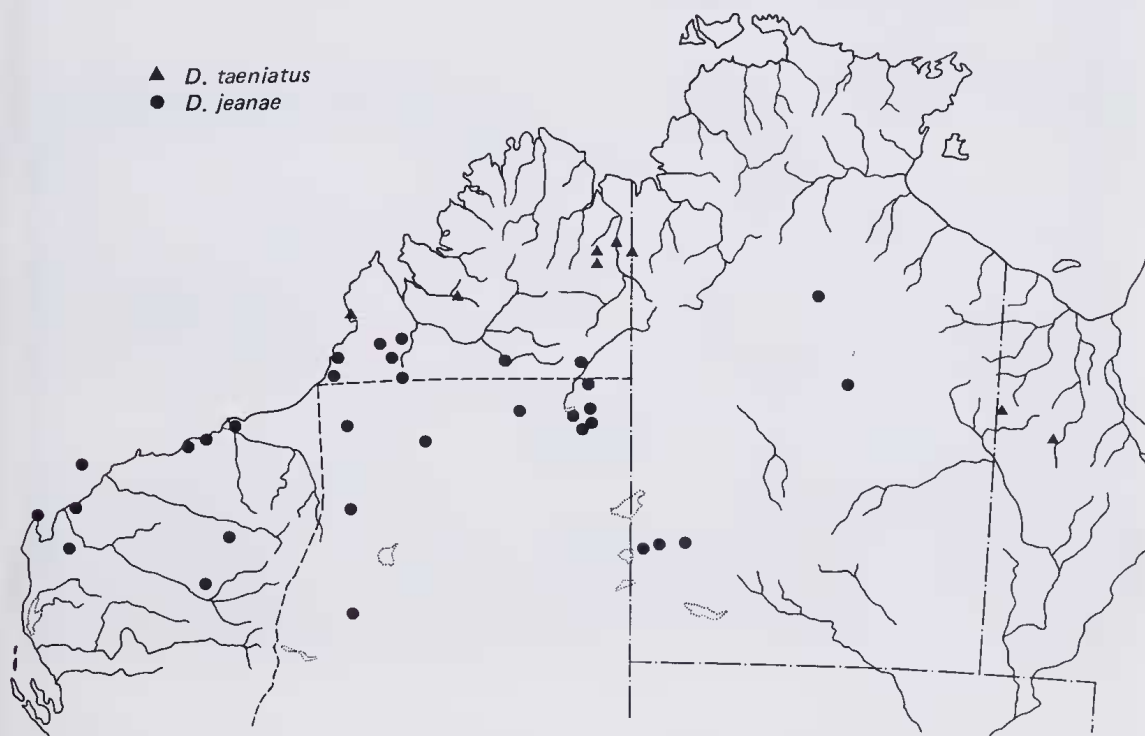


Figure 2 Map of northern Australia showing location of specimens of *Diplodactylus taeniatus* (including holotype and Kluge's specimen from near Camooweal) and *D. jeanae*.

Derivation of name

After Miss Jean White of the Western Australian Museum's Department of Ornithology and Herpetology.

Material

Kimberley Division (WA)

50 km WNW Dampier Downs (53798) and 27 km ENE (53799-800); Lagrange (46215) and 16 km S (27402); Edgar Ranges (53956-7, 70938); Christmas Creek (26031); Wolfe Creek Crater (64025); 13 km E Anna Plains (75107); McLarty Hills (57263, 57310).

North-west Division (WA)

De Grey (2115); Port Hedland (36326) and 25 km SW (21777-99); Mundabullangana (30389-91); Barrow I. (48942-50, 56694-8); 4 km S Onslow (85336-40); 10 km NE Urala (80405); Vlaming Head (52948, 52961-2, 61053, 61176-7, 61193, 61216-7, 61400, 61488); Exmouth (58257); 9 km NW Barradale (80456); 192 km SE Wallal (36137); 25 km SW Marillana (73606); 3 km SE Turee Creek (25147) and 10 km S (83731-9) and 14 km SSW (95647-52).

Eastern Division (WA)

42 km ESE Billiluna (83591-2); Balgo (67568, 83589-90) and 44 km S (83593); Twin Heads (63422); Lens Bore (20°15'S, 127°30'E) (63315-7, 63326, 63348-9, 63360); Djaluwon Creek (64103); Anketell Ridge (20°23'S, 122°08'E) (69509); 26 km E Bishops Dell (69907-8, 69916-7); 39 km SSW McTavish Claypan (64245, 64252); c. 80 km S Telfer (22°19'S, 122°04'E) (95444); 27 km N Weld Spring (15833).

Northern Territory

14 km SE Elliott (24152-9); 3 km SE Tennant Creek (21384-7); Willie Rockhole (23°16'S, 129°45'E) (96982); Ehrenberg Range (96978-80); Kintore Range (96981).

Diplodactylus taeniatus

Figure 3

Oedurella taeniata Lönnberg and Anderson (1913: 5-6, figs 1-3). Near Broome, Western Australia.

Diagnosis

A very small, slender *Diplodactylus* (subgenus *Strophurus*), most like *D. jeanae* but with rostral widely excluded from nostril and much narrower dark dorso-lateral, mid-lateral and mid-ventral stripes.

Description

Snout-vent length (mm): 27-44 (N 13, mean 38.8). Length of tail (% SVL): 66-81 (N 4, mean 74.7)

Nostril surrounded by first labial, 2 supranasals (first much the larger and excluding rostral from nostril) and 1 (N 8) or 2 (5) postnasals. Rostral groove complete (N 13). Internasals 1 (N 3), 2 (7) or 3 (3). Upper labials 9 (N 1), 10 (4), 11 (6) or 12 (2). Under side of digits with pair of large apical plates, followed on fourth toe distally by 3 (N 5) or 4 (6) transverse lamellae and proximally by 1 (N 7) or 2 (4) rows of subcircular scales. No pre-anal pores.

Upper and lateral ground colour whitish or pale yellow, except anteriorly for orange laterodorsal and upper lateral stripes. Brown vertebral stripe from nape to tail always present. Brown dorsolateral stripe extending forward above eye to snout and back on to tail. Brown mid-lateral stripe from neck to hindleg; forking behind ear, upper branch extending narrowly forward through orbit, and lower above lips to snout. Brown mid-ventral stripe on body and tail, and occasionally a faint or hollow outer ventral stripe. Iris maroon except for diffuse whitish spots and white margin to pupil.

Distribution

Semiarid northern Australia, from Broome (WA) east to Mt Isa (Qld). See map, Figure 2.



Figure 3 A *Diplodactylus taeniatus* from Mt Isa, photographed by M. Peterson.

Material

Kimberley (WA)

Lake Argyle, 17 km S Ord River Dam (52436-9); 12 km WNW Lissadell (75504) and 11 km WSW (70405) and 15 km WSW (70426, 75378); 3 km E Yammera Gap (56434) and 12 km ESE (57319-20).

Northern Territory

30 km N Rosewood (42913).

Queensland

5 km N Mt Isa (55445).

References

- Kluge A.G. (1967). Systematics, phylogeny, and zoogeography of the lizard genus *Diplodactylus* Gray (Gekkonidae). *Aust. J. Zool.* 15: 1007-1108.
- Lönnberg, E. and Anderson, L.G. (1913). Results of Dr E. Mjöberg's Swedish expeditions to Australia 1910-13. III. Reptiles. *K. Svenska VetenskAkad. Handl.* 52 (3): 1-17.
- Storr, G.M. and Ford, J.R. (1967). Rediscovery and taxonomic status of the Western Australian gecko *Diplodactylus michaelsoni*. *West. Aust. Nat.* 10: 160-162.